CLAIMS

1. An antimicrobial composition comprising at least two quaternary ammonium compounds selected from:

(i) a quaternary ammonium compound having the formula:

$$A_{4-n}Si(R\text{-}NH_aR^1{}_bZ)_n$$

and

(ii) a quaternary ammonium compound having the formula:

$$NH_cR^1{}_dZ$$

wherein in each of the at least two quaternary ammonium compounds A, R, R^1, a, Z and n are independently selected, and:

A is a member selected from the group consisting of alkoxy radicals, alkylether alkoxy radicals, and alkyl radicals;

R is a divalent hydrocarbon radical;

each R^1 is independently a member selected from the group consisting of benzyl, alkyl radicals, alkyl ether hydrocarbon radicals, hydroxyl-containing alkyl radicals, and nitrogen-containing hydrocarbon radicals;

Z is a member selected from the group consisting of chloride, bromide, iodide, tosylate, hydroxide, sulfate and phosphate;

a is 0, 1 or 2, b is 1, 2 or 3, and the sum of a and b is 3;

c is 0, 1, 2 or 3, d is 1, 2, 3 or 4, and the sum of c and d is 4; and

n is 1, 2 or 3; and

wherein the composition comprises at least two quaternary ammonium compounds of formula (i) and one quaternary ammonium compound of formula (ii).

2. The composition as claimed in Claim 1 wherein;

A is a member selected from the group consisting of alkoxy radicals of 1 to 10 carbon atoms, alkylether alkoxy radicals of 2 to 10 carbon atoms, and alkyl radicals with 1 to 10 carbon atoms; and/or

R is a divalent hydrocarbon radical with 1 to 10 carbon atoms; and/or

each R^1 is independently a member selected from the group consisting of benzyl, alkyl radicals with 1 to 30 carbon atoms, alkyl ether hydrocarbon radicals of 2 to 30 carbon atoms, hydroxyl-containing alkyl radicals of 1 to 30 carbon atoms, and nitrogen-containing hydrocarbon radicals of 1 to 30 carbon atoms.

3. The composition according to claim 1 or 2 which comprises three quaternary ammonium compounds of formula (i) and one quaternary ammonium compound of formula (ii) as defined in claim 1.

4. The composition as claimed in any preceding claim wherein an R^1 group of one of the quaternary ammonium compounds, is different from the R^1 group or groups of the other quaternary ammonium compound or compounds.

5. The composition as claimed in any preceding claim wherein at least one R^1 group has 18 carbon atoms.

6. The composition as claimed in any preceding claim wherein one of the quaternary ammonium compounds is 3-(trimethoxysilyl) propyl dimethyl octadecyl ammonium chloride.

7. The composition as claimed in any preceding claim wherein one of the quaternary ammonium compounds is alkyl silyl dimethyl benzyl ammonium chloride.

8. The composition as claimed in any preceding claim wherein one of the quaternary ammonium compounds is dioctyl silyl dimethyl ammonium bromide.

9. The composition as claimed in any preceding claim which comprises water and/or ethanol.

10. The composition as claimed in any preceding claim which comprises the quaternary ammonium compounds in a concentration of from about 0.1 to about 5% by volume, preferably about 0.5 to about 2% by volume.

11.A method of reducing the number of micro-organisms on a surface, comprising contacting said surface with an antimicrobial composition comprising as claimed in any of claims 1 to 10.

12. The method as claimed in claim 11 wherein the surface is skin.

13. The method as claimed in claim 11 wherein the surface is an inanimate surface.

14. The method as claimed in any of claims 11 to 13 wherein the anti-microbial composition is used as a spray, foam, mist, fog or wipes.